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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/472,725	12/27/1999	Michael V. Leman	108298578US	9135

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PERKINS COIE LLP
PATENT-SEA
P.O. BOX 1247
SEATTLE, WA 98111-1247

EXAMINER	
LEVI, DAMEON E	
ART UNIT	**PAPER NUMBER**
2841	

DATE MAILED: 11/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/472,725	Applicant(s) LEMAN ET AL.	
	Examiner Dameon E Levi	Art Unit 2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 December 1999* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,4-6,10,11,17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Sands et al US Patent 5691504 .

Regarding claim 1, Sands et al discloses an assembly comprising:

- a bracket body having a first arrangement of bracket fastening sites aligned with the attachment sites of the first computer circuit board and a second arrangement of bracket fastening sites aligned with the attachment sites of the second computer circuit board; at least one circuit board fastener having a bracket coupling portion coupled to one of the bracket fastening sites and a board coupling portion aligned with and configured to couple to one of the attachment sites of the first circuit board when the circuit board fastener is coupled to a bracket fastening site of the first arrangement, or the board coupling portion being aligned with and configured to couple to an attachment site of the second circuit board when the circuit board fastener is coupled to a bracket fastening site of the second arrangement; and at least one chassis fastener coupled to the bracket body and positioned to couple to a corresponding fastening site of the computer chassis to support the bracket body and either the

first circuit board or the second circuit board relative to the chassis(for example, see elements 110,120,130,122,112,134, Figs 1-3).

Regarding claim 2, Sands et al discloses wherein the bracket coupling portion of the circuit board fastener is unthreaded and configured to be removably attached to the bracket body without the use of tools, the board coupling portion of the circuit board fastener is unthreaded and configured to be removably attached to the circuit board without the use of tools, and the chassis fastener is unthreaded and configured to be attached to the chassis without the use of tools (for example, see Figs 1-3).

Regarding claim 4, Sands et al discloses wherein the chassis has an elongated slot extending in a first direction and the bracket body includes a guide member positioned to extend in a second direction transverse to the first direction into the elongated slot of the chassis to guide the bracket body into alignment with the chassis (for example, see Figs 1-3).

Regarding claim 5, Sands et al discloses wherein the bracket fastening sites include apertures sized to receive the bracket coupling portion of the circuit board fastener(for example, see Figs 1-3).

Regarding claim 6, Sands et al discloses wherein at least one of the bracket fastening sites includes an elongated groove having a lengthwise dimension greater than a corresponding lengthwise dimension of the bracket connection portion of the board fastener to support the bracket connection portion in a plurality of positions within the groove(for example, see Figs 1-3).

Regarding claim 10, Sands et al discloses wherein the bracket body is a first bracket body and the second circuit board has a larger planform area than the first circuit board, further comprising a second bracket body couplable to a portion of the second circuit board and the chassis to support the second circuit board relative to the chassis (for example, see Figs 1-3).

Regarding claim 11, Sands et al discloses wherein the second bracket body includes an elongated member having at least one bracket fastening site aligned with an attachment site of the second computer circuit board and at least one chassis fastener positioned to couple to a fastening site of the computer chassis(for example, see Figs 1-3).

Regarding claim 17, Sands et al discloses an assembly comprising:

- a circuit board having a plurality of attachment sites and at least one circuit element with a grounding terminal; an input/output collector coupled to the circuit board and electrically coupled to the grounding terminal of the circuit element, a chassis; an attachment bracket coupled to the attachment sites of the circuit board with circuit board fasteners and coupled to the chassis with at least one chassis fastener, and an electrically conductive gasket coupled between the connector and the chassis, the gasket providing the sole electrical path between the grounding terminal of the circuit element and the chassis(for example, see elements 10,120,130,122,112,118,129,134, Figs 1-3).

Regarding claim 18, Sands et al discloses: wherein at least one of the circuit board fasteners is unthreaded and includes first flexible prongs configured to be removably

inserted into an aperture of the circuit board, and the at least one chassis fastener is unthreaded and includes an engaging surface spaced apart from the attachment bracket with the chassis clamped between the attachment bracket and the engaging surface to restrict relative motion between the attachment bracket and the chassis(for example, see Figs 1-3).

Regarding claim 19, Sands et al discloses wherein the circuit board includes a connector plate supporting the connector and the gasket includes a compressible conductive material positioned between the chassis and the connector plate (for example, see Figs 1-3).

Claims 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Leman US Patent 6046912 .

Regarding claim 12, Leman discloses an assembly comprising:

a bracket body having a first portion extending along a first axis and a second portion integral with the first portion extending along a second axis transverse to the first axis, the bracket body further having a plurality of bracket fastening sites positioned along the first and second axes and aligned with a corresponding plurality of attachment sites of the circuit board; a plurality of circuit board fasteners, each board fastener having a bracket coupling portion coupled to a corresponding bracket fastening site and a board coupling portion aligned with and configured to couple to one of the attachment sites of the circuit board; and at least one chassis fastener coupled to the bracket body

and positioned to couple with a corresponding fastening site of the computer chassis (for example, see 600,602,606Figs 6A,6B,3-5).

Regarding claim 13, Leman discloses wherein the chassis fastener, the bracket coupling portion of the circuit board fastener, and the board coupling portion of the circuit board fastener are each unthreaded(for example, see Figs 6A,6B)

Regarding claim 14, Leman discloses wherein the bracket fastening site includes an aperture and the bracket coupling portion of the circuit board fastener includes two flexible projections configured to extend into the aperture, each projection having a lip surface engaged with a surface of the bracket body adjacent to the aperture to resist relative motion between the circuit board fastener and the bracket body when the circuit board fastener is coupled to the bracket body(for example, see Figs 6A,6B)

Regarding claim 15, Leman discloses wherein the bracket body includes at least two spaced apart longitudinal members joined with at least two spaced apart transverse members(for example, see Figs 6A,6B)

Regarding claim 16, Leman discloses further comprising support members connected diagonally between the longitudinal members and the transverse members(for example, see Figs 6A,6B)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sands et al US Patent 5691518 in view of Bhargava et al US Patent 4855873.

Regarding claim 3, Sands et al disclose the instant claimed invention except wherein the bracket coupling portion of the circuit board fastener is unthreaded and includes first flexible prongs configured to be removably inserted into one of the first apertures of the bracket body without the use of tools and the board coupling portion of the circuit board fastener includes second flexible prongs configured to be removably inserted into one of the second apertures of the second circuit board without the use of tools.

Bhargava et al discloses an assembly wherein a bracket coupling portion of a circuit board fastener is unthreaded and includes first flexible prongs configured to be removably inserted into one of the first apertures of a bracket body without the use of tools and the board coupling portion of a circuit board fastener includes second flexible prongs configured to be removably inserted into one of the second apertures of the second circuit board without the use of tools(for example, see Figs 1-4).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a coupling portion of the type disclosed by Bhargave et al in the assembly as taught by Sands et al for as such resilient flexible tool less fasteners are known in the art(see Bhargava et al)

Claim 7-9,20-33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sands et al US Patent 5691518 in view of Leman et al US Patent 4855873 and further in view of Bhargava et al US Patent 4855873.

Regarding claim 7, Sands et al discloses the instant claimed invention except further comprising a bracket handle attached to the bracket body and having a grip portion configured to be engaged by a user to move the bracket body into or out of position relative to the chassis.

Leman discloses an assembly further comprising a bracket handle attached to the bracket body and having a grip portion configured to be engaged by a user to move the bracket body into or out of position relative to the chassis (for example, see Figs 6A,6B).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a bracket handle as taught by Leman in the assembly as taught by Sands et al for the purpose of facilitating insertion and removal of the bracket(see Leman)

Regarding claim 8, Sands et al discloses the instant claimed invention except wherein the bracket handle has a protrusion extending below a bottom surface of the bracket body, the protrusion sized to be removably received in a corresponding slot of the chassis to secure the bracket body relative to the chassis.

Leman discloses an assembly wherein the bracket handle has a protrusion extending below a bottom surface of the bracket body, the protrusion sized to be removably

received in a corresponding slot of the chassis to secure the bracket body relative to the chassis(for example, see Figs 6A,6B).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed a bracket handle as taught by Leman in the assembly as taught by Sands et al for the purpose of facilitating insertion and removal of the bracket(see Leman)

Regarding claim 9, Sands et al discloses the instant claimed invention except wherein the bracket body includes at least two spaced apart longitudinal members joined with at least two spaced apart transverse members extending between the longitudinal members.

Leman discloses an assembly wherein a bracket body includes at least two spaced apart longitudinal members joined with at least two spaced apart transverse members extending between the longitudinal members (for example, see 600 Figs 6A,6B).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the bracket body in the manner as taught by Leman in the assembly as taught by Sands et al for the purpose of providing structural stiffness to a circuit board and reduce damage due to flexing (see Leman column 4, lines 6-15)

Regarding claims 20-33, the methods disclosed therein are deemed as inherent in the assembly and operation of the claimed apparatus of the preceding claims as fully met

by the accompanying references, (Sands et al, Leman, Bhargava et al) and are subsequently rejected also.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dameon E Levi whose telephone number is (703) 305-0426. The examiner can normally be reached on Mon.-Fri. (9:00 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David S Martin can be reached on (703) 308-3121. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0058.

10/29/03

Dameon E Levi
Examiner
Art Unit 2841

DEL

DAVID MARTIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800